

the information received from the Internet. The compressed images are sent to the portable device for decompression and display. The portable device accepts pointing and clicking to links to other pages. Commands entered by the user at the portable device are sent to the host computer for execution via a virtual browser to generate a new page, which is then rasterized, compressed and sent to the portable device. Alternatively, a user may perform clicking and scrolling with respect to the image on the device to cause the actual execution in the virtual browser. The user may access a virtual desktop through the palm top device to create and modify documents.

IN THE CLAIMS:

Please cancel without prejudice claims 1-8. Please add the following new claims.

9. A method to access a remote host, the method comprising:
receiving, at a device, a first image of a virtual desktop from the remote host, the first image being received in a compressed image format, the virtual desktop representing a graphical desktop environment for controlling the remote host, the first image of the virtual desktop being generated by the remote host to indicate a state of the virtual desktop;
converting the first image from the compressed image format to a decompressed image format to display the first image;
receiving, at the device, user input with respect to the first image;
sending a first message indicating the user input to the remote host for the remote host to apply the user input to the virtual desktop; and

receiving, at the device, a second image of the virtual desktop from the remote host, the second image indicating a state of the virtual desktop after the user input is applied to the virtual desktop.

10. A method as in claim 9, wherein the user input comprises a click on a point on the first image; and, to generate the second image, the remote host applies a click to the virtual desktop at a point that corresponds to the point on the first image.

11. A method as in claim 9, wherein the user input comprises a double-click on a point on the first image; and, to generate the second image, the remote host applies a double-click to the virtual desktop at a point that corresponds to the point on the first image.

12. A method as in claim 9, wherein the user input comprises a drag-and-drop on the first image; and, the remote host applies a drag-and-drop to the virtual desktop at locations that correspond to locations where the drag-and-drop on the first image is received at the device.

13. A method as in claim 10, further comprising:
receiving, at the device, a second message from the remote host, the second message instructing the device to prompt for text input;
wherein the click applied to the virtual desktop allows text input at a location on the virtual desktop.

14. A method as in claim 9, wherein the virtual desktop comprises a virtual web browser; and, the virtual web browser renders web pages requested by the device at the remote host into images.
15. A method as in claim 9, further comprising:
displaying a feedback to a user of the device after said sending the first message to indicate that a response from the remote host is to be received.
16. A method as in claim 9, further comprising:
selectively displaying only a portion of the first image according a user input to the device.
17. A method as in claim 16, wherein said selectively displaying comprises:
scrolling at exclusive control of the device to display a portion of the first image.
18. A method as in claim 9, wherein the first image comprises a plurality of sections; and, the plurality of sections are received in a sequence according to a display priority.
19. A method as in claim 18, wherein a first section of the plurality of sections is received, decompressed and displayed before a second section of the plurality of sections is received.
20. A method as in claim 9, wherein the first image is received from the remote host through a wireless telecommunication link.

21. A method to serve a remote device, the method comprising:
generating, at a host, a first image of a virtual desktop to indicate a state of the virtual desktop, the virtual desktop representing a graphical desktop environment for controlling the host;
sending the first image in a compressed image format to the remote device;
receiving a first message from the remote device, the first message indicating user input received with respect to the first image;
applying the user input to the virtual desktop at a location corresponding to a location at which the user input is received with respect to the first image at the remote device;
generating, at the host, a second image of the virtual desktop, the second image indicating a state of the virtual desktop after the user input is applied to the virtual desktop; and
sending the second image of the virtual desktop to the remote device.
22. A method as in claim 21, wherein the user input comprises a click on a point on the first image; and, to generate the second image, the host applies a click to the virtual desktop at a point that corresponds to the point on the first image.
23. A method as in claim 21, wherein the user input comprises a double-click on a point on the first image; and, to generate the second image, the host applies a double-click to the virtual desktop at a point that corresponds to the point on the first image.

24. A method as in claim 21, wherein the user input comprises a drag-and-drop on the first image; and, the host applies a drag-and-drop to the virtual desktop at locations that correspond to locations where the drag-and-drop on the first image is received at the remote device.
25. A method as in claim 22, further comprising:
sending, to the remote device, a second message from the host, the second message instructing the remote device to prompt for text input;
wherein the click applied to the virtual desktop allows text input at a location on the virtual desktop.
26. A method as in claim 21, wherein the virtual desktop comprises a virtual web browser; and, the virtual web browser renders web pages requested by the remote device at the host into images.
27. A method as in claim 21 further comprising:
dividing the first image into a plurality of sections;
wherein the plurality of sections are sent to the remote device in a sequence according to a display priority in the compressed image format.
28. A method as in claim 21, wherein the first image is sent from the host to the remote device through a wireless telecommunication link.

29. A machine readable medium containing executable computer program instructions which when executed by a data processing system cause said system to perform a method to access a remote host, the method comprising:
receiving, at a device, a first image of a virtual desktop from the remote host, the first image being received in a compressed image format, the virtual desktop representing a graphical desktop environment for controlling the remote host, the first image of the virtual desktop being generated by the remote host to indicate a state of the virtual desktop;
converting the first image from the compressed image format to a decompressed image format to display the first image;
receiving, at the device, user input with respect to the first image;
sending a first message indicating the user input to the remote host for the remote host to apply the user input to the virtual desktop; and
receiving, at the device, a second image of the virtual desktop from the remote host, the second image indicating a state of the virtual desktop after the user input is applied to the virtual desktop.
30. A medium as in claim 29, wherein the user input comprises a click on a point on the first image; and, to generate the second image, the remote host applies a click to the virtual desktop at a point that corresponds to the point on the first image.
31. A medium as in claim 29, wherein the user input comprises a double-click on a point on the first image; and, to generate the second image, the remote host applies a double-click to the virtual desktop at a point that corresponds to the point on the first image.

32. A medium as in claim 29, wherein the user input comprises a drag-and-drop on the first image; and, the remote host applies a drag-and-drop to the virtual desktop at locations that correspond to locations where the drag-and-drop on the first image is received at the device.

33. A medium as in claim 30, wherein the method further comprises:
receiving, at the device, a second message from the remote host, the second message instructing the device to prompt for text input;
wherein the click applied to the virtual desktop allows text input at a location on the virtual desktop.

34. A medium as in claim 29, wherein the virtual desktop comprises a virtual web browser; and, the virtual web browser renders web pages requested by the device at the remote host into images.

35. A medium as in claim 29, wherein the method further comprises:
displaying a feedback to a user of the device after said sending the first message to indicate that a response from the remote host is to be received.

36. A medium as in claim 29, wherein the method further comprises:
selectively displaying only a portion of the first image according a user input to the device.

37. A medium as in claim 36, wherein said selectively displaying comprises:
scrolling at exclusive control of the device to display a portion of the first image.

38. A medium as in claim 29, wherein the first image comprises a plurality of sections; and, the plurality of sections are received in a sequence according to a display priority.
39. A medium as in claim 38, wherein a first section of the plurality of sections is received, decompressed and displayed before a second section of the plurality of sections is received.
40. A medium as in claim 29, wherein the first image is received from the remote host through a wireless telecommunication link.
41. A machine readable medium containing executable computer program instructions which when executed by a data processing system cause said system to perform a method to serve a remote device, the method comprising:
generating, at a host, a first image of a virtual desktop to indicate a state of the virtual desktop, the virtual desktop representing a graphical desktop environment for controlling the host;
sending the first image in a compressed image format to the remote device;
receiving a first message from the remote device, the first message indicating user input received with respect to the first image;
applying the user input to the virtual desktop at a location corresponding to a location at which the user input is received with respect to the first image at the remote device;

generating, at the host, a second image of the virtual desktop, the second image indicating a state of the virtual desktop after the user input is applied to the virtual desktop; and sending the second image of the virtual desktop to the remote device.

42. A medium as in claim 41, wherein the user input comprises a click on a point on the first image; and, to generate the second image, the host applies a click to the virtual desktop at a point that corresponds to the point on the first image.

43. A medium as in claim 41, wherein the user input comprises a double-click on a point on the first image; and, to generate the second image, the host applies a double-click to the virtual desktop at a point that corresponds to the point on the first image.

44. A medium as in claim 41, wherein the user input comprises a drag-and-drop on the first image; and, the host applies a drag-and-drop to the virtual desktop at locations that correspond to locations where the drag-and-drop on the first image is received at the remote device.

45. A medium as in claim 42, wherein the method further comprises: sending, to the remote device, a second message from the host, the second message instructing the remote device to prompt for text input; wherein the click applied to the virtual desktop allows text input at a location on the virtual desktop.

46. A medium as in claim 41, wherein the virtual desktop comprises a virtual web browser; and, the virtual web browser renders web pages requested by the remote device at the host into images.
47. A medium as in claim 41 wherein the method further comprises:
dividing the first image into a plurality of sections;
wherein the plurality of sections are sent to the remote device in a sequence according to a display priority in the compressed image format.
48. A medium as in claim 41, wherein the first image is sent from the host to the remote device through a wireless telecommunication link.
49. A device to access a remote host, the device comprising:
means for receiving, at the device, a first image of a virtual desktop from the remote host, the first image being received in a compressed image format, the virtual desktop representing a graphical desktop environment for controlling the remote host, the first image of the virtual desktop being generated by the remote host to indicate a state of the virtual desktop;
means for converting the first image from the compressed image format to a decompressed image format to display the first image;
means for receiving, at the device, user input with respect to the first image;
means for sending a first message indicating the user input to the remote host for the remote host to apply the user input to the virtual desktop; and

means for receiving, at the device, a second image of the virtual desktop from the remote host, the second image indicating a state of the virtual desktop after the user input is applied to the virtual desktop.

50. A device as in claim 49, wherein the user input comprises a click on a point on the first image; and, to generate the second image, the remote host applies a click to the virtual desktop at a point that corresponds to the point on the first image.

51. A device as in claim 49, wherein the user input comprises a double-click on a point on the first image; and, to generate the second image, the remote host applies a double-click to the virtual desktop at a point that corresponds to the point on the first image.

52. A device as in claim 49, wherein the user input comprises a drag-and-drop on the first image; and, the remote host applies a drag-and-drop to the virtual desktop at locations that correspond to locations where the drag-and-drop on the first image is received at the device.

53. A device as in claim 50, further comprising:
means for receiving, at the device, a second message from the remote host, the second message instructing the device to prompt for text input;
wherein the click applied to the virtual desktop allows text input at a location on the virtual desktop.

54. A device as in claim 49, wherein the virtual desktop comprises a virtual web browser; and, the virtual web browser renders web pages requested by the device at the remote host into images.
55. A device as in claim 49, further comprising:
means for displaying a feedback to a user of the device after the first message is sent to the remote host to indicate that a response from the remote host is to be received.
56. A device as in claim 49, further comprising:
means for selectively displaying only a portion of the first image according a user input to the device.
57. A device as in claim 56, wherein said means for selectively displaying comprises:
means for scrolling at exclusive control of the device to display a portion of the first image.
58. A device as in claim 49, wherein the first image comprises a plurality of sections; and, the plurality of sections are received in a sequence according to a display priority.
59. A device as in claim 58, wherein a first section of the plurality of sections is received, decompressed and displayed before a second section of the plurality of sections is received.

60. A device as in claim 49, wherein the first image is received from the remote host through a wireless telecommunication link.

61. A host to serve a remote device, the host comprising:
means for generating, at the host, a first image of a virtual desktop to indicate a state of the virtual desktop, the virtual desktop representing a graphical desktop environment for controlling the host;
means for sending the first image in a compressed image format to the remote device;
means for receiving a first message from the remote device, the first message indicating user input received with respect to the first image;
means for applying the user input to the virtual desktop at a location corresponding to a location at which the user input is received with respect to the first image at the remote device;
means for generating, at the host, a second image of the virtual desktop, the second image indicating a state of the virtual desktop after the user input is applied to the virtual desktop; and
means for sending the second image of the virtual desktop to the remote device.

62. A host as in claim 61, wherein the user input comprises a click on a point on the first image; and, to generate the second image, the host applies a click to the virtual desktop at a point that corresponds to the point on the first image.

63. A host as in claim 61, wherein the user input comprises a double-click on a point on the first image; and, to generate the second image, the host applies a double-

click to the virtual desktop at a point that corresponds to the point on the first image.

64. A host as in claim 61, wherein the user input comprises a drag-and-drop on the first image; and, the host applies a drag-and-drop to the virtual desktop at locations that correspond to locations where the drag-and-drop on the first image is received at the remote device.

65. A host as in claim 62, further comprising:
means for sending, to the remote device, a second message from the host, the second message instructing the remote device to prompt for text input; wherein the click applied to the virtual desktop allows text input at a location on the virtual desktop.

66. A host as in claim 61, wherein the virtual desktop comprises a virtual web browser; and, the virtual web browser renders web pages requested by the remote device at the host into images.

67. A host as in claim 61 further comprising:
means for dividing the first image into a plurality of sections;
wherein the plurality of sections are sent to the remote device in a sequence according to a display priority in the compressed image format.

68. A host as in claim 61, wherein the first image is sent from the host to the remote device through a wireless telecommunication link.